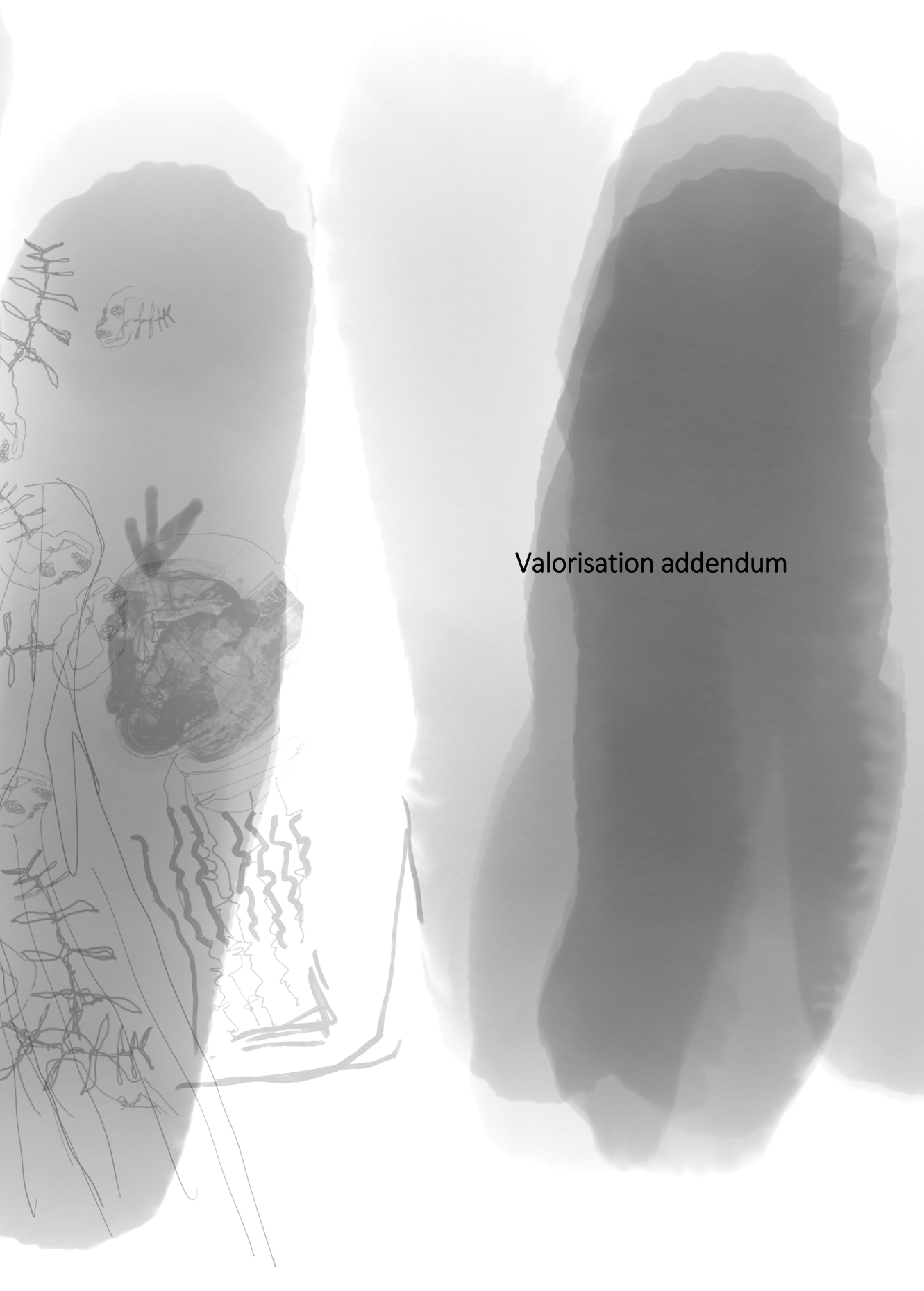
Work outcome in musculoskeletal diseases



Valorisation addendum

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Background and main findings

Chronic diseases are associated with unfavorable health outcomes, high healthcare costs and adverse work outcomes.[1,2] In the Netherlands, approximately 31% of the general population reports at least one chronic condition[3] and this proportion is even rising due to an aging population, lifestyle-related diseases at a younger age, and earlier diagnoses.[4,5] Therefore, the co-occurrence of chronic diseases, also referred to as multimorbidity, is increasing. The growing number of individuals with one or more chronic diseases is particularly concerning in the context of traditional job-markets. In addition to the limited number of available jobs, the pressure on the individual to work longer and more efficiently is higher than ever, threatening persons with chronic diseases who are already at increased risk of adverse work outcome, additionally.
This thesis emphasizes that the risk for adverse work outcome is independent of the type of disease. Yet, when accounting for the prevalence, the societal burden of musculoskeletal diseases (MSKD) and mental diseases is larger. More-over, comparable adverse work outcome across diseases is observed not only for sick leave and work-disability, but also for economic unemployment and being dependent of a living allowance. Further, while each additional comorbidity increases the risk for adverse health and work outcome, this impact is stronger when the additional disease is a MSKD.[1,2] Importantly, a reduction of the duration of sick leave is seen when an intensive, multidisciplinary treatment program aimed at work resumption is followed by patients on recent sick leave due to MSKD when compared to usual care.[6] Finally, we highlight that aggregated results on work outcomes from international studies cannot be transferred to individual countries. Indeed, country of residence, defining the wider economic and social security context of a person with a chronic disease, contributed relevantly to the work outcome of patients with MSKD.[7] On the same line, translations of existing English single global questions on impairments in work ability at the job (presenteeism), results interpretational problems for some languages.[8]

Contribution of this thesis to society

This thesis adds evidence to a broader range of national and international initiatives on worker participation in MSKD but also holds relevant evidence for other diseases and medical specialists. In the Netherlands, the Dutch Society of Rheumatology (Nederlandse Vereniging voor Reumatologie; NVR) published a guideline '*Worker Participation and Rheumatoid Arthritis',*[9] which provides a reference frame of evidence to support work participation in patients with rheumatoid arthritis (RA). This guideline proposes to include (screening) questions about the current work ability of RA-patients at each medical encounter and to integrate this in the individual patient's treatment

plan. During my thesis, I was involved in Taget@Work, a project within the Workgroup 'Economic aspects of Rheumatic Diseases' of the NVR aims to implement and add new evidence to the Dutch Guideline. Coordinated and supported by the "Centrum Werk Gezondheid", Target@Work contributes to the latter by providing tools for rheumatologists and nurse specialists how to retrieve information on work ability during the clinical encounter, how to select patients wih possible adverse work outcomes and how to integrate this knowledge in a treatment plan. Personally, I contributed to an E-learning program which contains several modules and is offered to rheumatologists together with a team session. However, even after training of rheumatology teams based on the E-learning followed by an interactive session, work ability was only addressed in47% of working patients during the routine clinical encounter.[10] Participating rheumatologists and specialist nurses revealed they consider work outcome an important treatment goal, but also identified barriers to the implementation of the screening tool, including time and limited skills, but also lacking evidence on (cost-) effectiveness of some situations related to the identification and management of work restrictions.

This thesis contributed to possible solutions. First, we identified several valid single item and patient self-reported global instruments that measures presenteeism (i.e. at-work productivity loss). Scoring is not time-consuming and can even be included as part of the preparations that patients are advised to undertake before coming to the clinic. The use of validated instruments in clinical practice as part of the electronic patient file allows not only to follow-up work ability of the individual patient but also the performance of the team about efforts to include work ability in the management plan. Next, as multimorbidity was shown to result in a steep increase in risk for sick leave and work disability its presence could act as an additional warning sign for long-term sick leave and future work disability. Finally, the multidisciplinary care treatment-program (RRR) evaluated in this thesis can be seen as a new treatment possibility for patients on recent sick leave. The evaluation of the costs and effects in a real life setting could provide additional insight into a better selection of patients that benefit most from such an intensive program. Cost might be substantially reduced when the intervention is offered only to a selected group of patients with more severe impairments in their work ability but also by offering the program in a less exclusive environment, resulting in lower prices for lodging and catering. An important issue that needs to be addressed is whether such interventions are part of medical care, and therefor paid by the health insurance OR the (financial) responsibility of the employer. In this context, it is also relevant to discuss whether such programs could be commercialized by private partners. While healthcare products are increasingly turned into businesses for profit, frameworks should be available to ensure care is provided to the intended (complex) populations, and monitoring of quality of care and health effects should be in place. Value and not volume should drive such initiatives.

As this thesis showed that all chronic diseases are related to adverse work outcomes, there is a need for several medical disciplines to address work outcomes in daily care. The activities conducted in the field of rheumatology may serve as an example.

Healthy work for persons with (and without) chronic disease

We realize that physicians and nurses may experience a conflict of interest, when they doubt whether maintaining their work is in fact beneficial for patients. It is indeed questionable whether increase in work productivity should be a goal on its own. While 'work' might be therapeutic in some circumstances, 'sick leave;' is definitely required to enable the individual to get better from an episode of illness and regain strength. We should strive to maintain symbiotic work situations by keeping those persons at work that would otherwise face social isolation through sickness and who are likely to be able to contribute relevantly to society. While much evidence is available showing which disease characteristics and contextual factors have an adverse impact on productivity and labour force participation, there is almost no data indicating which work-related factors have an invigorating effect on disease severity. However, such factors require attention and matching the workers work load and work ability should be considered. The issue of 'suitable work' seems relevant and while it can be partly covered by the domains of medical research, availability of such jobs it not within reach of the healthcare system itself. Moreover, work-related factors that amplify the negative impact of disease on health, are likely also 'unhealthy' for workers without chronic disease. Creating universal healthy workplaces that allow persons with or without chronic disease to maintain optimal and enduring functioning and health throughout their working career should be the ultimate goal: collaboration of researchers, policy makers and companies is needed to achieve a better work-life balance and improve workplace facilities. Even without chronic disease, the balance between the right and the duty to participate in labor force, and possibilities to adopt new and more individualized ways of working require a discussion in a larger public setting.

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